

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A data transmission system ~~including~~ comprising:

a plurality of subscriber units, ~~having~~ including at least a subscriber unit with a video receiver and a subscriber unit without a video receiver, each of the plurality of subscriber units is configured to interconnect with a central office unit via optical fibers, the central office unit is configured to multiplex a video signal with signals other than the video signal and to deliver them to the plurality of subscriber units, wherein each subscriber unit is configured to demultiplex a received signal, and each of said plurality of subscriber units comprises: and

the subscriber unit without the video receiver includes a first wavelength division multiplexer/demultiplexer configured to eliminate attenuate a particular wavelength signal from each of the plurality of subscriber units,

~~wherein~~ the subscriber unit with the video receiver is configured to separate the video signal from the multiplexed signal received at the a second wavelength division multiplexer/demultiplexer and to input the video signal to the video receiver, and

wherein the subscriber unit without the video receiver is configured to separate the video signal from the multiplexed signal received at the first wavelength division multiplexer/demultiplexer, to ~~remove~~ attenuate the video signal without ~~termination a terminator to prevent further downstream transmission of the video signal with respect to the~~ first wavelength division multiplexer/demultiplexer, to separate the signals other than the video signal, and to input the signal signals other than the video signal to a transmitting and receiving section, and

the subscriber unit without the video receiver includes a transmitting laser diode and a receiving photodiode, the transmitting photodiode is disposed outside of the first wavelength

division multiplexer/demultiplexer and on a first end surface of the first wavelength division multiplexer/demultiplexer, and the receiving photodiode is disposed outside of the second wavelength division multiplexer/demultiplexer and on second end surface, opposite the first end surface, of the first wavelength division multiplexer/demultiplexer.

Claim 2 (Previously Presented): The data transmission system according to claim 1, wherein said wavelength division multiplexer/demultiplexer is configured to reflect the particular wavelength signal to reject its input.

Claim 3 (Previously Presented): The data transmission system according to claim 1, wherein said wavelength division multiplexer/demultiplexer comprises a reflecting layer configured to reflect the particular wavelength signal at an input end surface of an optical fiber of the subscriber unit.

Claim 4 (Previously Presented): The data transmission system according to claim 3, wherein said reflecting layer comprises a dielectric multilayer filter.

Claim 5 (Previously Presented): The data transmission system according to claim 1, further comprising an optical fiber with a core and a cladding that covers an external surface of the core, and that has multiple notches formed on the cladding to reflect the particular wavelength signal.

Claim 6 (Original). The data transmission system according to claim 1, wherein said wavelength division multiplexer/demultiplexer comprises an optical wave guide that is made

of a polymer and absorbs a signal with a wavelength of 1650 nm, which is employed as the particular wavelength signal.

Claim 7 (Currently Amended): A data transmission system including: a plurality of subscriber units, having at least a subscriber unit with a video receiver and a subscriber unit without a video receiver, each of the plurality of subscriber units is configured to interconnect with a central office unit via optical fibers, the central office unit configured to multiplex a video signal with signals other than the video signal and to deliver them to the plurality of subscriber units, ~~wherein each subscriber unit is configured to demultiplex a received signal,~~ and said central office unit comprises:

an optical amplifier configured to amplify the video signal to be transmitted; and

an optical distributor configured to distribute the video signal output from said optical amplifier and to supply the video signal output to a wavelength division multiplexer/demultiplexer,

wherein ~~each of said plurality of subscriber units~~ unit without the video receiver comprises a first wavelength division multiplexer/demultiplexer configured to ~~eliminate~~ attenuate a particular wavelength signal ~~from each of the plurality of subscriber units,~~

wherein the subscriber unit with the video receiver is configured to separate the video signal from the multiplexed signal received at ~~the~~ a second wavelength division multiplexer/demultiplexer and to input the video signal to the video receiver, and

wherein the subscriber unit without the video receiver is configured to separate the video signal from the multiplexed signal received at the first wavelength division multiplexer/demultiplexer, to ~~remove~~ attenuate the video signal without ~~termination~~ a terminator to prevent further downstream transmission of the video signal with respect to the first wavelength division multiplexer/demultiplexer, to separate the signals other than the

video signal, and to input the ~~signal~~ signals other than the video signal to a transmitting and receiving section, and

the subscriber unit without the video receiver includes a transmitting laser diode and a receiving photodiode, the transmitting photodiode is disposed outside of the first wavelength division multiplexer/demultiplexer and on a first end surface of the first wavelength division multiplexer/demultiplexer, and the receiving photodiode is disposed outside of the second wavelength division multiplexer/demultiplexer and on second end surface, opposite the first end surface, of the first wavelength division multiplexer/demultiplexer.

Claim 8 (Currently Amended): A data transmission system including: a plurality of subscriber units, having at least a subscriber unit with a video receiver and a subscriber unit without a video receiver, the plurality of subscriber units configured to interconnect with a central office unit via optical fibers, the central office unit configured to multiplex a video signal with signals other than the video signal and to deliver them to the plurality of subscriber units, wherein each of the plurality of subscriber units is configured to demultiplex a received signal, and said central office unit comprises:

a plurality of video signal generators configured to generate video signals with different wavelengths;

a first wavelength division multiplexer/demultiplexer configured to multiplex the video signals supplied from said plurality of video signal generators;

an optical amplifier configured to amplify the video signals output from said first wavelength division multiplexer/demultiplexer; and

an optical distributor configured to distribute the video signals output from said optical amplifier to a second wavelength division multiplexer/demultiplexer,

~~wherein each of said plurality of subscriber units~~ the subscriber unit without the video receiver comprises a first wavelength division multiplexer/demultiplexer configured to eliminate a particular wavelength signal from ~~each of said plurality of subscriber units~~ unit without the video receiver,

~~wherein~~ the subscriber unit with the video receiver is configured to separate the video signal from the multiplexed signal received at ~~the~~ a second wavelength division multiplexer/demultiplexer and to input the video signal to the video receiver, ~~and~~

~~wherein~~ the subscriber unit without the video receiver is configured to separate the video signal from the multiplexed signal received at the first wavelength division multiplexer/demultiplexer, to ~~remove~~ attenuate the video signal without ~~termination~~ a terminator to prevent further downstream transmission of the video signal with respect to the first wavelength division multiplexer/demultiplexer, to separate the signals other than the video signal, and to input the ~~signal~~ signals other than the video signal to a transmitting and receiving section, and

the subscriber unit without the video receiver includes a transmitting laser diode and a receiving photodiode, the transmitting photodiode is disposed outside of the first wavelength division multiplexer/demultiplexer and on a first end surface of the first wavelength division multiplexer/demultiplexer, and the receiving photodiode is disposed outside of the second wavelength division multiplexer/demultiplexer and on second end surface, opposite the first end surface, of the first wavelength division multiplexer/demultiplexer.

Claim 9 (Currently Amended): A data transmission system including: a plurality of subscriber units, having at least a subscriber unit with a video receiver and a subscriber unit without a video receiver, the plurality of subscriber units configured to interconnect with a central office unit via optical fibers, the central office unit configured to multiplex a video

signal with signals other than the video signal and to deliver them to the plurality of subscriber units, ~~wherein each of the plurality of subscriber units is configured to demultiplex a received signal, and each of said plurality of subscriber units comprises:~~ and the subscriber unit without the video receiver comprises:

a first wavelength division multiplexer/demultiplexer configured to demultiplex the video signals and signals other than the video signal; and

a second wavelength division multiplexer/demultiplexer configured to ~~eliminate~~ attenuate a particular wavelength signal ~~from each of said plurality of subscriber units,~~

wherein the subscriber unit with the video receiver is configured to separate the video signal from the multiplexed signal received at the a third wavelength division multiplexer/demultiplexer and to input the video signal to the video receiver, and

~~wherein~~ the subscriber unit without the video receiver is configured to separate the video signal from the multiplexed signal received at the second wavelength division multiplexer/demultiplexer, to ~~remove~~ attenuate the video signal without ~~termination a terminator to prevent further downstream transmission of the video signal with respect to the~~ second wavelength division multiplexer/demultiplexer, to separate the signals other than the video signal, and to input the signal other than the video signal to a transmitting and receiving section, and

the subscriber unit without the video receiver includes a transmitting laser diode and a receiving photodiode, the transmitting photodiode is disposed outside of the second wavelength division multiplexer/demultiplexer and on a first end surface of the second wavelength division multiplexer/demultiplexer, and the receiving photodiode is disposed outside of the second wavelength division multiplexer/demultiplexer and on second end surface, opposite the first end surface, of the second wavelength division multiplexer/demultiplexer.

Claim 10. (Previously Presented). The data transmission system according to claim 1, wherein said wavelength multiplexer/demultiplexer includes a first optical waveguide, a second optical waveguide, and a filter positioned such that the first optical waveguide and the second optical waveguide form a junction at the filter.

Claim 11. (Previously Presented). The data transmission system according to claim 7, wherein said wavelength multiplexer/demultiplexer includes a first optical waveguide, a second optical waveguide, and a filter positioned such that the first optical waveguide and the second optical waveguide form a junction at the filter.

Claim 12. (Previously Presented). The data transmission system according to claim 8, wherein said wavelength multiplexer/demultiplexer includes a first optical waveguide, a second optical waveguide, and a filter positioned such that the first optical waveguide and the second optical waveguide form a junction at the filter.

Claim 13 (Previously Presented). The data transmission system according to claim 9, wherein at least said first wavelength multiplexer/demultiplexer includes a first optical waveguide, a second optical waveguide, and a filter positioned such that the first optical waveguide and the second optical waveguide form a junction at the filter.